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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,584	09/17/2003	Jason David Evans	MRKS/0121	3686

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EXAMINER

BOCHNA, DAVID

ART UNIT PAPER NUMBER

3679

DATE MAILED: 04/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/664,584

Applicant(s)

EVANS ET AL.

Examiner

David E. Bochna

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-84 is/are pending in the application.
- 4a) Of the above claim(s) 28-42, 62, 79 and 83 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27, 43-61, 63-78, 80-82 and 84 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claims 28-42, 62, 79 and 83 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 1/21/05.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The phrase "There is disclosed" should be removed from the abstract.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the numerous hinges recited in claim 54 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

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should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 45 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-6, 9-15, 61, 63-65, 71-75, 82 and 84 are rejected under 35 U.S.C. 102(b) as being anticipated by Campbell ‘745.

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In regard to claim 1, Campbell discloses a tubing connection arrangement comprising:

a first expandable tubing section 22 defining a male portion; a second expandable tubing section 24 defining a female portion, the first and second expandable tubing sections being engageable with one another; one of the first and second expandable tubing sections including a restraining member for restraining part of the other expandable tubing section; and the first expandable tubing section including a tapered shoulder 39 for cooperating with a corresponding tapered shoulder 35 of the second expandable tubing section.

In regard to claim 2, wherein the first expandable tubing section includes first 39 and second 34 axially spaced shoulders for cooperating with corresponding first 35 and second 37 axially spaced shoulders of the second expandable tubing section.

In regard to claim 3, wherein the shoulder comprises a face 37, 39 of the respective expandable tubing section.

In regard to claim 4, wherein the face 37, 39 is formed on an axial end of the respective tubing section.

In regard to claim 5, wherein the expandable tubing sections include a radially extending shoulder member 35 or 34 or 37 or 39 defining the shoulder.

In regard to claim 6, wherein each expandable tubing section includes a first shoulder 39, 37 comprising a face on an axial end thereof and a radially extending shoulder 34, 35 member defining a second shoulder.

In regard to claim 9, the restraining member 33 extends from an axial end of the second expandable tubing section 24 (cylindrical sleeve 30 extends from the end of pipe 24).

In regard to claim 10, wherein the restraining member 33 extends from the female portion of the second expandable tubing section 24.

In regard to claim 11, wherein the restraining member 32 is adapted to extend in an axial direction along an outer surface of part 27a of the first expandable tubing section 22.

In regard to claim 12, wherein the restraining member 30 is adapted to extend in an axial direction along an outer surface of part of the second expandable tubing section 24.

In regard to claim 13, wherein the restraining member comprises a sleeve 30.

In regard to claim 14, wherein the sleeve 30 comprises slotted tubing 27b.

In regard to claim 15, wherein the sleeve 30 defines a number of separate arms or fingers 41.

In regard to claim 61, Campbell discloses a first expandable tubing section 22 defining a threaded male portion 32 and a threaded radial hole 42 extending through the threaded male portion and adapted to receive a threaded locking member;

a second expandable tubing section 24 defining a female portion, the first and second expandable tubing sections being engageable with one another and the second expandable tubing section including a bore 43 extending through the threaded female portion and adapted to receive the threaded locking member when the threaded hole of the first expandable tubing section is aligned with the bore of the second expandable tubing section, for restraining the sections against relative rotation.

In regard to claim 63, Campbell discloses a tubing connection arrangement comprising:

a first expandable tubing section 22 defining a male portion; a second expandable tubing section 24 defining a female portion, the first and second expandable tubing sections being

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engageable with one another; and the first expandable tubing section including first and second axially spaced shoulders 35, 37, 39 and 34 for co-operating with corresponding first and second axially spaced shoulders of the second expandable tubing section, the length of the male portion between the first and second shoulders being selected to minimize bending of the male and female portions on expansion.

In regard to claim 64, wherein the male and female portions are threaded 32, 33.

In regard to claim 65, wherein a majority of the length of the male and female portions between the respective first and second shoulders is threaded.

In regard to claim 71, wherein one of the first and second expandable tubing sections includes a restraining member 42.

In regard to claim 72, wherein the male portion 22 of the first expandable tubing section comprises a pin and the female portion 24 of the second expandable tubing section comprises a box.

In regard to claim 73, wherein the male and female portions of the first and second expandable tubing sections define upsets 34, 35.

In regard to claim 74, wherein the tubing connection arrangement is a downhole tubing connection arrangement.

In regard to claim 75, a downhole tubing comprising a tubing connection arrangement as claimed in claim 1.

In regard to claim 82, Campbell discloses the method comprising the steps of: providing a first expandable tubing section 22 defining a threaded male portion having a threaded radial hole 42 extending therethrough', providing a second expandable tubing section 24 defining a

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female portion having a bore 43 extending therethrough; coupling the first and second expandable tubing sections together; aligning the threaded radial hole with the bore; and locating a threaded locking member in the aligned radial hole and bore for restraining the sections against relative rotation.

In regard to claim 84, Campbell discloses a method of coupling expandable tubing sections together, the method comprising the steps of: providing a first expandable tubing section defining a male portion 22 including first 34 and second 39 axially spaced shoulders; providing a second expandable tubing section 24 defining a female portion including first 37 and second 35 axially spaced shoulders; selecting the length of the male portion between the first and second shoulders to minimize bending of the male and female portions on expansion (see col. 3, lines 34-38); and

coupling the first and second expandable tubing sections together such that said respective first and second shoulders of the first and second expandable tubing sections are brought into engagement.

7. Claims 43, 47-51, 55-60, 76 and 78-81 are rejected under 35 U.S.C. 102(a) as being anticipated by Coulon et al.

In regard to claim 43, Coulon et al. discloses a tubing connection arrangement comprising: a first expandable tubing section 1 defining a male portion; a second expandable tubing section 2 defining a female portion, the first and second expandable tubing sections being engageable with one another; and one of the first and second expandable tubing sections including a restraining member 21 for restraining part of the other expandable tubing section, the restraining member including a hinge about which the restraining member is adapted to

bend on expansion.

In regard to claim 47, wherein the hinge 21 is integral with the restraining member.

In regard to claim 48, wherein the hinge 21 comprises a living hinge.

In regard to claim 49, wherein the hinge 21 is defined by a zone of weakness in the restraining member.

In regard to claim 50, wherein the zone of weakness 21 comprises an area of relatively thin cross-sectional thickness than a remainder of the restraining member.

In regard to claim 51, wherein the restraining member comprises a separate component 2 coupled to the respective expandable tubing section 1 to form a hinge therebetween.

In regard to claim 55, wherein the hinge 21 is provided in the same axial position of the restraining member as a bending zone on the overlapped expandable tubing section.

In regard to claim 56, Coulon et al. discloses a tubing connection arrangement comprising: a first expandable tubing section 1 defining a threaded male portion; a second expandable tubing section 2 defining a threaded female portion, the first and second expandable tubing sections being engageable with one another; and wherein a cross-sectional thickness of the first expandable tubing section is greater in the region of the male threaded portion than at a point 21 axially spaced from the male threaded portion 3.

In regard to claim 57, wherein the point 21 is spaced axially from the male portion in a direction away from an end (the left end of 1 in fig. 2) of the first expandable tubing section defining the male portion.

In regard to claim 58, wherein the point 21 comprises an area extending at least part way along a length of the first expandable tubing section immediately adjacent the male portion.

In regard to claim 59, wherein the first expandable tubing section includes a shoulder 15 for co-operating with a corresponding shoulder 16 of the second expandable tubing section 2.

In regard to claim 60, wherein the point 21 is immediately adjacent the shoulder 15 of the first expandable tubing section.

In regard to claim 76, Coulon et al. discloses a method of coupling expandable tubing sections together, the method comprising the steps of: providing a first expandable tubing section 1 defining a male portion and a respective tapered shoulder 7; providing a second expandable tubing section 2 defining a female portion and a respective tapered shoulder 8; providing a restraining member 16 on one of the first and second expandable tubing sections; and coupling the first and second expandable tubing sections together such that the restraining member restrains part of said other expandable tubing section and such that said shoulders 7, 8 are brought into engagement.

In regard to claim 78, Coulon et al. discloses a method of coupling expandable tubing sections together, the method comprising the steps of: providing a first expandable tubing section 1 defining a threaded male portion 3 having lead and back thread flanks; and providing a second expandable tubing section 2 defining a female portion having lead and back thread flanks, the back thread flanks of the threaded male and female portions being disposed at an acute angle with respect to respective main thread axes such that the respective thread portions are angled away from an adjacent end of the respective tubing section; and coupling the first and second expandable tubing sections together.

In regard to claim 80 Coulon et al. discloses a method of coupling expandable tubing sections together, the method comprising the steps of: providing a first expandable tubing section

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1 defining a male portion; providing a second expandable tubing section 2 defining a female portion; providing one of the first and second expandable tubing sections with a restraining member 21 having a hinge about which the restraining member is adapted to bend on expansion; and coupling the first and second expandable tubing sections together such that the restraining member restrains part of said other expandable tubing section.

In regard to claim 81, Coulon et al. discloses a method of coupling expandable tubing sections together, the method comprising the steps of: providing a first expandable tubing section 1 defining a threaded male portion; providing a second expandable tubing section 2 defining a threaded female portion, a cross-sectional thickness of the first expandable tubing section being greater in the region of the male threaded portion 3 than at a point 21 axially spaced from the male threaded portion; and coupling the first and second expandable tubing sections together.

8. Claims 43-48 and 51-54 rejected under 35 U.S.C. 102(e) as being anticipated by Metcalfe.

In regard to claim 43, Metcalfe discloses a tubing connection arrangement comprising: a first expandable tubing section 24 defining a male portion; a second expandable tubing section 22 defining a female portion, the first and second expandable tubing sections being engageable with one another; and one of the first and second expandable tubing sections including a restraining member 20 for restraining part of the other expandable tubing section, the restraining member including a hinge (angled section that connects 20 to 22 because as the tube is expanded from left to right portion 20 will expand before 22, and 20 will pivot outward at the point where 20 is connected to 22) about which the restraining member is adapted to bend on expansion.

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In regard to claim 44, wherein the restraining member 20 extends from an axial end of the second expandable tubing section 22.

In regard to claim 45, wherein the restraining member 20 extends from the female portion.

In regard to claim 46, wherein the restraining member 20 comprises a sleeve adapted to extend in an axial direction around an outer surface of part of the first expandable tubing section 24.

In regard to claim 47, wherein the hinge is integral with the restraining member 20.

In regard to claim 51, wherein the restraining member comprises a separate component 24 coupled to the respective expandable tubing section to form a hinge therebetween.

In regard to claim 52, wherein the restraining member 20 comprises a sleeve.

In regard to claim 53, the restraining member 20 comprises a plurality of arms (arms are created by the longitudinal notches 18).

In regard to claim 54, wherein the restraining member 20 includes a plurality of axially spaced hinges (hinge connected 20 to 22 and connecting 21 to 22) about which the restraining member is adapted to pivot on expansion.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. Claims 16-27 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coulon et al. Coulon et al. discloses a tubing connection arrangement comprising a first expandable tubing section defining a threaded male portion having lead and back thread flanks; and a second expandable tubing section defining a threaded female portion having lead and back thread flanks, the first and second expandable tubing sections being engageable with one another, but Coulon et al. does not disclose making the threads of male and female portions at different angles. However, it would have been obvious to a person having ordinary skill in the art to make the threads at various angles because a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

11. Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell. Campbell discloses a threaded connection as described above, but does not disclose that the threads extend over half of the length between the respective first and second shoulders. However, it would have been obvious to a person having ordinary skill in the art to make the threads longer because a change in the size of a prior art device is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955).

12. Claims 67-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell in view of PCT WO 00/0831. Campbell discloses a threaded connection as described above, but does not disclose the use of a filter screen on the tubing connection. PCT WO 00/0831 demonstrates that using screens on expandable couplings to keep debris out of a well is common and well known in the art. Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the connection of Campbell to

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include a filter screen, because the practice of using filter screens with expandable down hole couplings was known, as shown by PCT WO 00/0831.

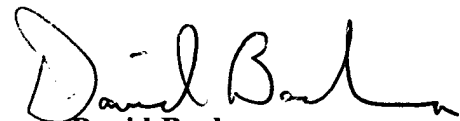
Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Klementich discloses a similar coupling common in the art.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Bochna whose telephone number is (703) 306-9040. The examiner can normally be reached on 8-5:30 Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (703) 308-2686. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.



David Bochna
Primary Examiner
Art Unit 3679
April 21, 2005